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Erik de la Iglesia

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EXAMINER

NGUYEN, KIM T

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/814,093 | Applicant(s) IGLESIA ET AL. | |
| | Examiner KIM T. NGUYEN | Art Unit 2163 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>08/20/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
2. Applicant's submission filed on 08/20/2008 has been entered. Claims 1-17, 26-27 are pending in this Application.

Response to Arguments

3. Applicant's arguments filed on 08/20/2008 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Gai does not disclose "capturing objects or even traffic that has passed through the system" and "capturing objects or generating a tag describing them". However, Gai discloses (on column 1 lines 60-66, column 2 lines 1-15, Figures 2, 6, 7A and 7B) some networking software, including the Internet Operating System (IOS) from Cisco Systems, Inc., support the creation access control lists or filters, which are typically used to prevent certain traffic from entering or exiting a network. In particular, certain layer devices utilize access lists to control whether routed *packets (capturing objects)* should be forwarded or filtered (i.e., dropped) by the device based on certain predefined criteria. When a packet is received by such a

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device, it is tested against each of the criteria statements of the corresponding list. If a match is found, the packet is either forwarded or dropped as provided by the list. The criteria may be source address, destination address, or upper-layer application based on their TCP/UDP port numbers. For example, an access list may allow e-mail to be forwarded but cause all Telnet traffic to be dropped. Access lists may be established for both inbound and outbound traffic and are most commonly configured at layer devices located at the border of a network (i.e., gateways or firewalls) to provide security to the network. In addition, Gai discloses *traffic type (500 kb/s VIDEO CONFERENCE, 2 Mb/s VIDEO CONFERENCE, and so on) as traffic that has passed through the system*. Finally, Gai discloses IP address, TCP, NETWORK PROTOCOL/PORT NUMBER and so on in tables 7A and 7B as the tag has been generating or creating to describe *the capturing objects (data frames)*.

Applicant argues that Gai does not disclose “generating for storage of objects captured during transmission from an origination address to a destination address”. However Gai discloses (on Figures 7A, 7B, column 12 lines 31-66, column 13 lines 1-41, column 14 lines 2-66, column 15 lines 1-58) fields name (such as IP addresses, TCP and so on) or locations have been generating for storage of objects captured during transmission from an origination address to a destination address.

Applicant argues that Gai does not disclose “storing data in the fields to create a tag that indexes the captured object in storage”. However Gai disclose (on Figures 7A, 7B) IP address or TCP are storing in IP ADDRESS and NETWORK PROTOCOL/PORT

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NUMBER fields which create as a tag and the tag is use to indexing a captured object in storage.

Applicant argues that Gai does not disclose “storing data associated with capture of an object by a capture system to create a tag that indexes the captured object in storage”. However, Gai discloses (Figures 7A, 7B, column 3 lines 65-66, column 4 lines 1-16) source address, destination address, TCP/UDP port numbers are storing data associated with capture of an object by a capture system to create a tag that indexes the captured object in storage.

Examiner respectfully disagrees with all other allegations as argued as will be discussed in detail below. Examiner, in her previous office action gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111[R-1]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be ‘given the broadest reasonable interpretation consistent with the specification’.

Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-9, 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 7,185,073 B1 issued to Gai et al. ("Gai").

As per claim 1, Gai teaches "a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising":

generating a tag describing an object captured during transmission from an origination address to a destination address, wherein the tag includes,

"a source address field to indicate an origination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

"a destination address field to indicate a destination address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

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“a source port field to indicate an origination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

“a destination port field to indicate a destination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

“a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object,” (column 11 lines 48-66, Fig. 7B, Fig. 6), and

“a time field to indicate when the object was captured,” (column 14 lines 30-46); and

“storing the tag in a database, wherein the tag indexes a captured object in storage,” (Figures 7A, 7B).

As per claim 2, Gai further shows “the plurality of content types,” comprises: “JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice, HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext, Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown,” (column 11 lines 48-66, Fig. 7B, Fig. 6).

As per claim 3, Gai further shows “generating a device identity field to indicate a device that captured the object,” (column 12 lines 46-66, column 13 lines 1-6).

As per claim 4, Gai further shows “generating a protocol field to indicate the protocol that carried the object,” (column 12 lines 46-66, column 13 lines 1-6, Fig. 7B).

As per claim 5, Gai further shows “an instance field to indicate a number of the object in a connection,” (column 14 lines 30-62).

As per claim 6, Gai further shows “generating an encoding field to indicate a how the object was encoded,” (column 19 lines 1-14, column 19 lines 26-37).

As per claim 7, Gai further shows “generating a size field to indicate the size of the object,” (column 8 lines 40-52).

As per claim 8, Gai further shows “generating an owner field to indicate an entity that requested capture of the object,” (column 12 lines 10-23, column 18 lines 37-66).

As per claim 9, Gai further shows “generating a capture rule field to indicate a rule that triggered capture of the object,” (column 19 lines 1-37).

As per claim 26, Gai teaches “a method to index a captured object, comprising”: generating for storage of objects captured during transmission from an origination address to a destination address:

“a source address field to indicate an origination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination address field to indicate a destination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

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“a source port field to indicate an origination port of the object; a destination port field to indicate a destination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5); “a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object,” (column 11 lines 48-66, Fig. 7B, Fig. 6); and “a time field to indicate when the object was captured,” (column 14 lines 30-46); and “storing data in the fields to create a tag, the tag indexing a captured object in storage,” (Figures 7A, 7B).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10-17, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 7,185,073 B1 issued to Gai et al. (“Gai”) and in view of “Cryptographic Hash Functions” issued to Bart Preneel (“Preneel”).

Gai teaches the data structure of claim 10, set forth in the rejection of claim 1 above but does not explicitly teach: “generating a signature field to store a signature of the object”. However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art

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at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 11, Preneel and Gai teach the data structure of claim 10 discussed above. Preneel also teaches: "the signature comprises a digital cryptographic signature," (pages 2-5 sections 2-2.3).

Gai teaches the data structure of claim 12, set forth in the rejection of claim 1 above but does not explicitly teach: "generating a tag signature field to store a signature of the data structure". However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 13, Preneel and Gai teach the data structure of claim 12 discussed above. Preneel also teaches: "the tag signature comprises a digital cryptographic signature," (pages 2-5 sections 2-2.3).

As per claim 14, Gai does not explicitly teach: "a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising": storing data associated with capture of an object by a capture system to create a tag that indexes the captured object in storage, the data comprising:

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"an Ethernet controller MAC address of the capture system that captured the object,"

(column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66, column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

"a source Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66,

column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16,

column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines

1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a source TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines 1-

66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-

16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination TCP/IP port number of the object," (column 1 lines 17-66, column 2 lines

1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"an IP protocol that carried the object when captured by the capture

system," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3

lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

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"a canonical count of a number of the object within a TCP/IP connection," (column 2 lines 15-27);

"a content type of the object," (column 11 lines 48-66, Fig. 7B, Fig. 6);

"an encoding that was used on the object," (column 19 lines 1-14, column 19 lines 26-37);

"a size of the object," (column 8 lines 40-52);

"a timestamp indicating when the capture system captured the object," (column 14 lines 30-46);

"a user who requested capture of the object," (column 12 lines 10-23, column 18 lines 37-66);

"a capture rule that directed capture of the object," (column 19 lines 1-37);

"a hash signature of the object," (pages 2-5 sections 2-2.3);

and a hash signature of the tag," (pages 2-5 sections 2-2.3).

However, Preneel teaches hash function of the object and hash function of the tag (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 15, Preneel and Gai teach the data structure of claim 14 discussed above. Preneel also teaches: "the hash signature of the object comprises a digital cryptographic signature of the object," (pages 2-5 sections 2-2.3).

As per claim 16, Preneel and Gai teach the data structure of claim 14 discussed above. Preneel also teaches: "the hash signature of the tag comprises a digital cryptographic signature of the tag," (pages 2-5 sections 2-2.3).

As per claim 17, Gai teaches: "the content type of the object is one of JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice, HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext, Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown," (column 11 lines 48-66, Fig. 7B, Fig. 6).

As per claim 27, Gai does not explicitly teach "a method to index a captured object, comprising":

storing data associated with capture of an object by a capture system to create a tag indexing the captured object in storage, the data comprising:

"an Ethernet controller MAC address of the capture system that captured the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66, column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

"a source Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

"a destination Ethernet IP address of the object," (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-

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16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a source TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“an IP protocol that carried the object when captured by the capture system,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a canonical count of a number of the object within a TCP/IP connection,” (column 2 lines 15-27);

“a content type of the object,” (column 11 lines 48-66, Fig. 7B, Fig. 6);

“an encoding that was used on the object,” (column 19 lines 1-14, column 19 lines 26-37);

“a size of the object,” (column 8 lines 40-52);

“a timestamp indicating when the capture system captured the object,” (column 14 lines 30-46);

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“a user who requested capture of the object,” (column 12 lines 10-23, column 18 lines 37-66);

“a capture rule that directed capture of the object,” (column 19 lines 1-37);

“a hash signature of the object,” (pages 2-5 sections 2-2.3);

“a hash signature of the object,” (pages 2-5 sections 2-2.3); and

“a hash signature of the tag,” (pages 2-5 sections 2-2.3).

However, Preneel teaches hash function of the object and hash function of the tag (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Nguyen whose telephone number is (571)270-1757. The examiner can normally be reached on 7:30AM to 5:00PM East. Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nov. 03, 2008

/K. T. N./

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/don wong/

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